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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,274	04/05/2001	Sara H. Basson	YOR920000473US1(13824)	6613

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EXAMINER
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MILLER, BRANDON J

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/827,274	<b>Applicant(s)</b> BASSON ET AL.	
	<b>Examiner</b> Brandon J Miller	<b>Art Unit</b> 2683	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 August 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Amendment***

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 15 is rejected under 35 U.S.C. 102(b) as being anticipated by Logsdon.

Regarding claim 15 Logsdon teaches a virtual network, for transmitting cellular/radio signal; including a plurality of transceivers; a plurality of mobile objects, each of the mobile objects having one of the transceivers; and a source for transmitting cellular/radio signals (see col. 4, lines 45-48, 58-60 & 66-67). Logsdon teaches wherein a first of the mobile objects is in a location where the transceiver of the first mobile object does not have access to the signals directly from the source (see col. 5, lines 16-21). Logsdon teaches a second mobile object that is in a location where the transceiver of the second object receives the signals directly from the source (see col. 5, lines 32-36 & 47-49). Logsdon teaches using the transceiver on the second mobile object to transmit the signal to the transceiver of the first mobile object (see col. 5, lines 55-58). Logsdon teaches transmission devices that can be either chips in cellular telephones or in EZ passes (see col. 4, lines 8-10 & 66-67 and col. 12, lines 22-26).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 6-11, 13, and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Logsdon in view of Hyziak.

Regarding claim 1 Logsdon teaches a method of forming a virtual network, including providing each of a plurality of mobile objects with a transceiver; transmitting a cellular/radio signals from a source (see col. 4, lines 45-48, 58-60 & 66-67). Logsdon teaches moving at least a first of the mobile objects into a location where the transceiver of the first mobile object does not receive the signal directly from the source (see col. 5, lines 16-21). Logsdon teaches locating a second of the mobile objects in a position where the transceiver of the second mobile object receives the signal directly from the source (see col. 5, lines 32-36 & 47-49). Logsdon teaches using the transceiver on the second mobile object to receive the signal directly from the source to transmit the signal to the transceiver of the first mobile object (see col. 5, lines 55-58). Logsdon does not specifically teach the second mobile object determining whether the signal is marked for further transmission and if the signal is marked for further transmission, then using the transceiver of the second mobile object to transmit the signal to the transceiver of the first mobile object. Hyziak teaches a mobile object determining whether a signal is marked for further transmission and if the signal is marked for further transmission, then using the transceiver of the mobile object to transmit the signal to the transceiver of a designated mobile object (see col. 2, lines 1-10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include the second mobile object determining whether the signal is marked for further transmission and if the signal is marked for further

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transmission, then using the transceiver of the second mobile object to transmit the signal to the transceiver of the first mobile object because this would allow for extending coverage in a cellular communication system for transmission of signals between a base site and a remote unit that is beyond the range of the base site.

Regarding claim 2 Logsdon teaches providing each of the mobile objects with a sensor to determine when the transceiver of others of the mobile objects are not able to receive the cellular/radio signal directly from the source (see col. 5, lines 25-39). Logsdon teaches that when the sensor of one of the mobile objects determines that the transceiver of another of the mobile objects is not able to receive the signals directly from the source, the sensor of the mobile object activates its transceiver to transmit the signal to the transceiver of the other of the mobile objects (see col. 5, lines 40-58).

Regarding claim 3 Logsdon and Hyziak teach a device as recited in claim 1 except for mobile objects that may be cars or people. Logsdon teaches using multiple types of mobile objects (see col. 4, lines 8-14). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include mobile objects that may be cars or people because this would allow for increased coverage for mobile remote users moving in a cellular communication system.

Regarding claim 6 Logsdon teaches a location where a transceiver on the first mobile object does not have access to the signal directly from the source (see col. 5, lines 16-20). Hyziak teaches locations where a remote unit moves out of areas of coverage that include over large bodies of water (see col. 1, lines 32-37).

Regarding claim 7 Hyziak teaches determining whether the signal has reached the final user before sending the signal further (see col. 2, lines 1-10).

Regarding claim 8 Logsdon teaches a virtual network, for transmitting cellular/radio signal; including a plurality of transceivers; a plurality of mobile objects, each of the mobile objects having one of the transceivers; and a source for transmitting cellular/radio signals (see col. 4, lines 45-48, 58-60 & 66-67). Logsdon teaches wherein a first of the mobile objects is in a location where the transceiver of the first mobile object does not have access to the signals directly from the source (see col. 5, lines 16-21). Logsdon teaches a second mobile object that is in a location where the transceiver of the second object receives the signals directly from the source (see col. 5, lines 32-36 & 47-49). Logsdon teaches using the transceiver on the second mobile object to transmit the signal to the transceiver of the first mobile object (see col. 5, lines 55-58). Logsdon does not specifically teach the second mobile object including an analyzer to determine whether the signal is marked for further transmission; and if the signal is marked for further transmission, then the transceiver of the second mobile object transmits the signal to the transceiver of the first mobile object. Hyziak teaches a mobile object determining whether a signal is marked for further transmission and if the signal is marked for further transmission, then using the transceiver of the mobile object to transmit the signal to the transceiver of a designated mobile object (see col. 2, lines 1-10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include the second mobile object including an analyzer to determine whether the signal is marked for further transmission; and if the signal is marked for further transmission, then the transceiver of the second mobile object transmits the signal to the transceiver of the first mobile object because this would allow

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for extending coverage in a cellular communication system for transmission of signals between a base site and a remote unit that is beyond the range of the base site.

Regarding claim 9 Logsdon and Hyziak teach a device as recited in claim 2 and is rejected given the same reasoning as above.

Regarding claim 10 Logsdon and Hyziak teach a device as recited in claim 3 and is rejected given the same reasoning as above.

Regarding claim 11 Logsdon and Hyziak teach a device as recited in claim 6 and is rejected given the same reasoning as above.

Regarding claim 13 Logsdon teaches a chip that can be added to cellular telephones to transmit signals between cellular telephones (see col. 4, lines 8-10 & 66-67 and col. 12, lines 22-26).

Regarding claim 16 Logsdon teaches a program storage device readable by machine, tangibly embodying a program of instructions executable by a machine to perform method steps (see col. 2, lines 37-40 and col. 12, lines 22-29). Logsdon teaches a virtual network including a plurality of transceivers; a plurality of mobile objects, each of the mobile objects having one of the transceivers; and a source for transmitting cellular/radio signals (see col. 4, lines 45-48, 58-60 & 66-67). Logsdon teaches wherein a first of the mobile objects is in a location where the transceiver of the first mobile object does not have access to the signals directly from the source (see col. 5, lines 16-21). Logsdon teaches a second mobile object that is in a location where the transceiver of the second mobile object receives the signals directly from the source (see col. 5, lines 32-36 & 47-49). Logsdon teaches using the transceiver on the second mobile object to receive the signal directly from the source to transmit the signal to the transceiver of the first

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mobile object (see col. 5, lines 55-58). Logsdon does not specifically teach using the transceiver on the second mobile object to determine whether the signal is marked for further transmission; and if the signal is marked for further transmission, then using the transceiver of the second mobile object to transmit the signal to the transceiver of the first mobile object. Hyziak teaches a mobile object determining whether a signal is marked for further transmission and if the signal is marked for further transmission, then using the transceiver of the mobile object to transmit the signal to the transceiver of a designated mobile object (see col. 2, lines 1-10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include using the transceiver on the second mobile object to determine whether the signal is marked for further transmission; and if the signal is marked for further transmission, then using the transceiver of the second mobile object to transmit the signal to the transceiver of the first mobile object because this would allow for extending coverage in a cellular communication system for transmission of signals between a base site and a remote unit that is beyond the range of the base site.

Regarding claim 17 Logsdon and Hyziak teach a device as recited in claim 2 and is rejected given the same reasoning as above.

Regarding claim 18 Logsdon and Hyziak teach a device as recited in claim 3 and is rejected given the same reasoning as above.

Regarding claim 19 Logsdon and Hyziak teach a device as recited in claim 6 and is rejected given the same reasoning as above.

Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Logsdon in view of Hyziak and Johnson.



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Regarding claim 4 Logsdon and Hyziak teach a device as recited in claim 1 except for verifying whether the signal is an emergency signal, and giving a preferred treatment for the emergency signal. Logsdon does teach verifying whether a signal is an emergency signal (see col. 6, lines 6-18). Johnson teaches a signaling method which gives a preferred treatment for an emergency signal (see col. 3, lines 17-31). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include verifying whether the signal is an emergency signal, and giving a preferred treatment for the emergency signal because this would allow for an increased reduction or elimination of loss of life or damage of property.

Regarding claim 5 Logsdon, Hyziak, and Johnson teach a device as recited in claim 4 except for giving a preferred treatment for the emergency signal that includes assigning a most available frequency band for the emergency signal, and stopping transmitting other signal through this band. Logsdon does teach verifying whether a signal is an emergency signal (see col. 6, lines 6-18). Johnson does teach a signaling method which gives a preferred treatment for an emergency signal, which comprises assigning a most available frequency band for the emergency signal, and stopping transmitting other signals through this band. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include giving a preferred treatment for the emergency signal that includes assigning a most available frequency band for the emergency signal, and stopping transmitting other signal through this band because this would allow for an increased reduction or elimination of loss of life or damage of property.

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Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Logsdon in view of Hyziak and Karasawa.

Regarding claim 12 Logsdon and Hyziak teach a device as recited in claim 8 except for a chip that can be embedded in EZ-pass for transmitting cellular signals between cars. Karasawa teaches a chip that can be embedded in an onboard toll collection unit for transmitting cellular signals for cars (see col. 1, lines 5-10 and col. 3, lines 25-29). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a chip that can be embedded in EZ-pass for transmitting cellular signals between cars because this would allow for an onboard unit providing extending coverage in a cellular communication system.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Logsdon in view of Hyziak and Hanchett.

Regarding claim 14 Logsdon and Hyziak teach a device as recited in claim 8 except for a local network of transmission devices used to count the density of cars by determining distances between cars. Hanchett discloses a traffic information system that comprises a local network of transmission devices, which are used to count the density of cars (see col. 6, lines 35-48). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a local network of transmission devices used to count the density of cars by determining distances between cars because this would allow for an improved method of transmitting traffic information to commuters.

***Response to Arguments***

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Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Niwa U.S Patent No. 6,590,875 discloses radio data communication technique for maintaining a connection between a mobile radio transmission device and a server during a communication interruption.

Uratani U.S. Patent No. 5,850,593 discloses mobile communication for a mobile station near or outside a service area of a base station.

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Collyer U.S. Patent No. 5,915,208 discloses a vehicular repeater system and method therefor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J Miller whose telephone number is 703-305-4222. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

December 3, 2005

  
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